

## Combustible Gas Detector Instruction manual



### A. Introduction

This product one-hand-operated can detect the leaked gas indoors with its slim goose neck sensor, and alarm if gas leaks. It is widely used in environmental monitoring, petrochemical industry, sewage treatment, agricultural research, medical and other detection fields.

### B. Functions

- ▶ High sensitivity; Quick response.
- ▶ Indicating the leakage via alarming bulb.
- ▶ High sensitivity sensor able to detect slight gas leakage.
- ▶ 30cm long goose neck.
- ▶ Quick find the resource of leakage.
- ▶ Probe reset/ Detectability control

### C. Safety instruction

For your safety, please read this manual before operation.

- ⚠: This operation may induce physical hazard to users. Please be careful.
- ⊘: This operation may cause damage to the instrument. Please be careful.

⚠ Warning!

If there is explode accident happening:

- ▶ Cut off all the potential gas resource.
- ▶ Keep the rescuing area ventilated and no potential combustible gas existing.
- ▶ Switch off all the power connection.
- ▶ Evacuate all the people in the area.
- ▶ Report to the authorities immediately.

In daily work, please keep the work environment ventilated, for good ventilation can ensure that combustible gas will not accumulate.

### D. Warnings and Precautions

Improper operation or improper environment for usage

may cause inaccurate measurement.

- ⚠: The environments with high or low oxygen concentration may cause inaccurate measurement.
- ⊘: Other impurities such as gas or water vapor may affect the normal measurement of combustible gas sensor.
- ⊘: The sensor aperture must be kept clean, or impurities may cause inaccurate measurements.
- ⚠: When replacing battery, be careful not to install batteries backwards, otherwise it may cause the danger of electric leakage and accidents.
- ⚠: If the instrument breaks down, please turn to professional staff of our company for help, other people should not change components and wiring.
- ⚠: Do not disassemble the instrument in hazardous environments.
- ⚠: Do not disassemble the battery in explosive environments.
- ⚠: This product complies with the following procedures and calibration:  
JJG693-2004, GB3836.1-2010  
GB3836.4-2010, GB4208

### E. International safety knowledge

- ⚠ This operation must refer to instruction. Please be careful.

CE Complying with eu standard  
Explosion-proof sign: Ex ib IIB T3 Gb

### F. Name of parts (Figure 1)

- ① Probe cap and built-in sensor.
- ② Goose neck
- ③ Countersink
- ④ Alarm indication
- ⑤ Power indication (after startup)
- ⑥ Open/shut down key.
- ⑦ Sensitivity adjustment knob
- ⑧ Battery door

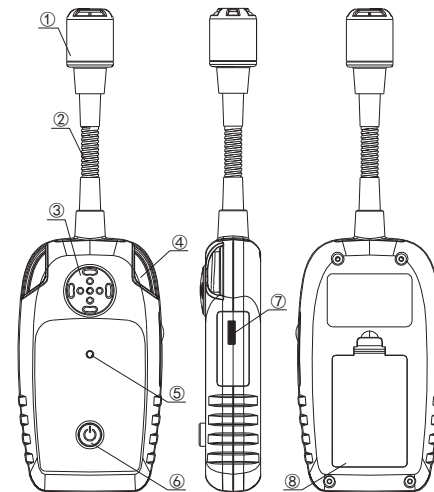


Figure 1

### G. Operation manual

#### 1. Operation instruction:

Press the "on/off" button to start the machine in a clean environment. When the power is sufficient, the green light will light up and preheat the instrument for about 1 minute and adjust to zero automatically. If the ticking alarm continues to sound, it is because the sensitivity was not set to the minimum before use.

#### 2. Beep rate (sensitivity) adjustment:

Before operate this product, a quick functional test must be performed. Adjust the ticking rate to a non-alarm level and the instrument will detect flammable gas after warm-up. When the probe is exposed to a known gas

source such as unburned lighter gas (butane) or flowing flammable gas, the "ticking" sound begins to intensify when the sensor at the top of the probe detects flammable gas and the instrument will set off alarm, with warning light (red light) flashing.

Continuous ticking will arise due to gas concentration if the operation environment needs to be quiet, or the environment is noisy, If the ready led or the battery is too low please replace the battery immediately. Low battery may impact the safety reliability of the product.

The beep sounds quicker and quicker if the sensor is approaching the gas resource closer and closer. And you can control the sound velocity by adjusting the sensitivity knob.

To enhance the sound velocity of "tick", rotate the knob clockwise with the thumb and slightly rotate counterclockwise to weaken the sound of "tick".

In a clean environment, the typical sound velocity is four to eight times per second. Keep the probe close to the area where a leak is suspected until the "tick" begins to intensify. To isolate the source of the leak, turn the probe slightly counterclockwise to weaken the "tick".

### 3.Replacing battery(Note: Please replace batteries in safe environments):

If the instrument have following status, Please replace the 1.5V AAA alkaline batteries:

- ▶ The green power indicator is off.
- ▶ No other LED is on as turning on the unit.

Follow the steps below to replace the battery:

- 1) Put the unit back upside
- 2) Take off the protective cover of the unit to open the battery door.
- 3) Take out the battery
- 4) Insert 3 fresh batteries.
- 5) Please do not install batteries backwards.

### 4.Replacing sensor:

The sensor of the unit can provide reliable service for years, it must be replaced only if the sensor is immersed into liquid or Long-term storage at high temperature and acid environment.

- 1) Turn off the unit.
- 2) Take out the sensor cap.
- 3) Take out the oldsensor.
- 4) Replace them with new sensor and cap.
- 5) Restart the instrument and carry out 'operation check'step.

## H. Others

### 1.Gas detecting:

The instrument is an advanced detection apparatus that can be used to test leakage of a variety of flammable gases.

### 2.Combustible gas:

The following list only shows partial gases can be detectable.

Natural gas	Propanol	CO	Spraying fuel
Propane	Ethanol	Sulfurated hydrogen	Industrial solvent
Butane	Ammonia	Smoke	Paint
Methane	Steam	Gasoline	Naphtha

### 3.Keep-up and maintenance:

#### 1) Keep-up:

- ▶ Keep-up and replacement of battery:  
Take out the battery from the unit which will not be operated for a long time less the leakage of battery damage and erode the battery contact metal.
- ▶ Case cleaning:  
Use only the fresh water to clean the case of the case of the product, forbidden to use any erosive liquid such as alcohol etc.
- ▶ Make sure the sensor is clean and use a soft brush to clean sensor aperture.

- ▶ Never impact it or operate and store it in humid environment.

Do not store the product in the environment below:

- a.Humid or dusty environment.
- b.High density of salt or sulfur.
- c.Environment full of the other chemical gas.
- d.High temperature or humidity, or environment in direct sunlight.

### 2) Maintenance:

Please refer to the guaranty card offered.We hold no responsibility for the product due to the following reason: Unauthorized disassembly of the product, improper transportation after purchasing and wrong storage, damage due to abuse, failure to provide purchasing proof or unauthorized amendment on the purchasing invoice/guaranty card.

## I. Technical parameters

Sensitivity	50ppm Methane
Sensor Type	Low Power Semiconductor
Warm-up Time	60 seconds( 25°C, 60% Rhenvironment)
Response Time	2 seconds
Operation Cycle	Continual Operation
Sensor Size	30cm
Battery Life	Continual Use For 8 Hours(A slight change base on working state)
Alarm Limit	Lel 10% Of Methane <sup>[1]</sup>
Low battery indication	3±0.2V
Operating environment temperature:	0~50°C <sup>[2]</sup>
Power	3*1.5V AAA Alkaline battery
Working current	About 150mA

Product size	68.85*29*132.98mm
Weight	165.5g

[1].LEL stands of low limit for explosion, the lowest content of a combustibile gas in air that results in explosion, can be refered to as %LEL.

[2].For precise reading the product can only be operated in the local environment as following.  
temperature: 0~50°C(32~120°F)  
Relative Humidity:10~90% RH(non-condensing)

### △ Specific Declarations:

- ▶ Old battery dealing must be complied with the local law and regulations.
- ▶ Our company shall hold no any responsibility resulting from using.  
output from this product as an direct or indirect evidence.
- ▶ We reserves the right to modify product design and specification without notice.

